NIOSH Extramural Grants Program

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CDC Workplace Safety and Health

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NIOSH Extramural Grants Program

- The extramural research and training program is designed to complement the intramural programs and to extend the research agenda beyond what NIOSH scientists can do alone.
- The extramural grants program takes advantage of the unique resources and creative expertise that exist in the extramural research community.

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NORA

- NORA is intended to focus national research efforts on priority injuries and illness in eight industrial sectors (agriculture, mining, construction, healthcare, manufacturing, services, transportation, trade)
- NIOSH will identify a subset of these research priorities to focus its programs
- NIOSH intramural and extramural research programs will have complimentary and unique priorities

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National Occupational Research Agenda (NORA)

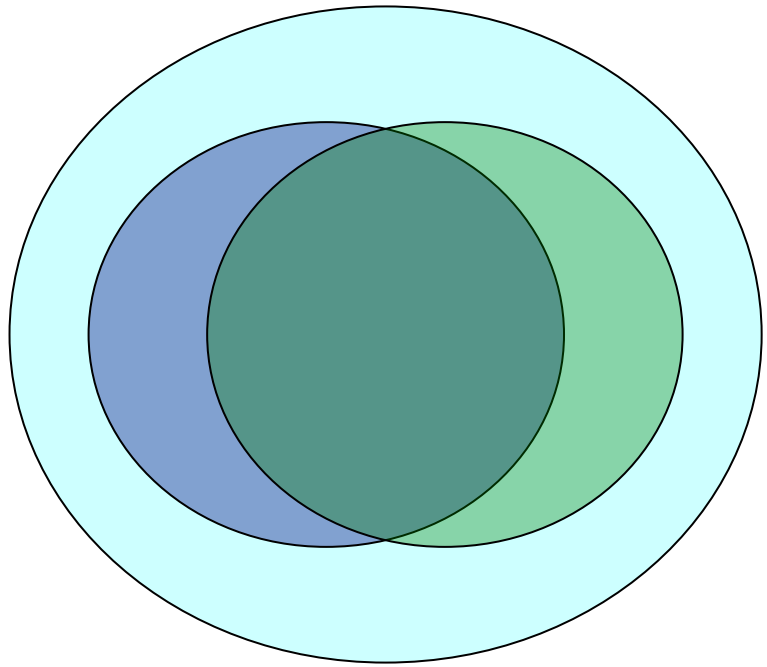
NORA - National

NORA - NIOSH All

NORA – NIOSH Intramural Only

NORA – NIOSH Extramural Only

NORA –NIOSH Intramural & Extramural Intersection



Occupational Safety and Health Research

…. *Many assets outside of NIOSH*

How does NIOSH tap into these extramural resources?

- Grants
- Cooperative Agreements
- Contracts

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NIOSH Funding Mechanisms

R01	Research Project Grant
R03	Small Grants
R21	Exploratory Grant
R43/44	Small Business Innovation Research Grant
K01	Career Development Grant
U…	Cooperative Agreements
T01	Graduate Training Programs
T02	Undergraduate Training Programs
T42	Education and Research Centers

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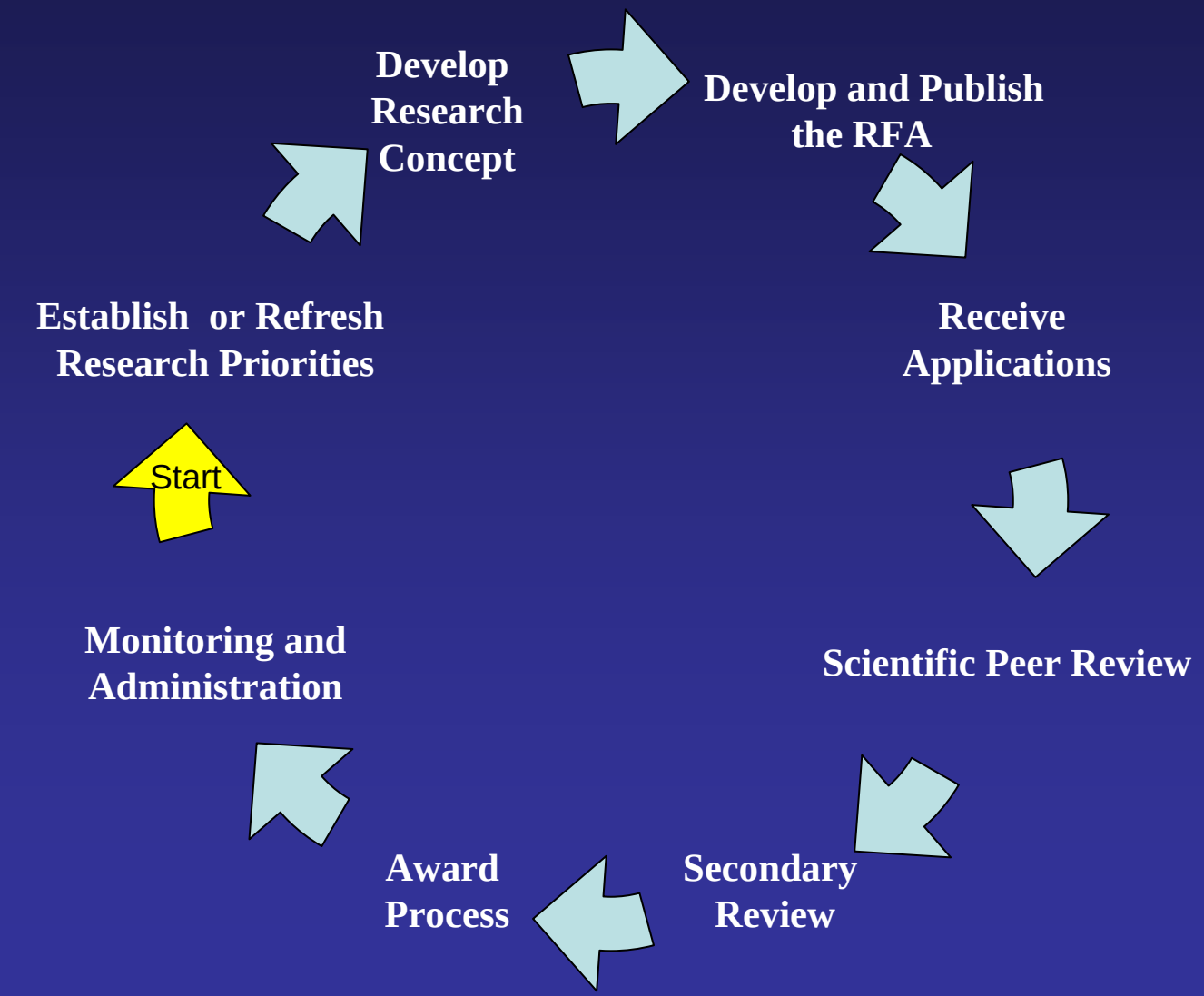
Extramural Research Grant Lifecycle



NIOSH Extramural Grants Program

- $84.6M extramural awards budget in FY2007
- Funding targets (including Congressional earmarks):
  - Training ($22.4M)
  - Agriculture ($15.3M)
  - Construction (6.4M)
  - Mining ($2.1M)
  - Workplace Violence ($1.5M)
  - Mesothelioma ($1.0M)
  - Fire Fighter Training ($600K)
- $33.8M available for investigator-initiated research

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NIOSH Extramural Grants Program

- The extramural program supports projects in 36 states plus Puerto Rico, the District of Columbia, Canada, and Switzerland
  - 140 research grants totaling $35.1M
  - 32 cooperative agreements totaling $23.9M
  - 17 ERCs totaling $20.7M
  - 34 training grants totaling $4.9M

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PERSONAL PROTECTIVE EQUIPMENT

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Personal Protective Equipment

The extramural research program in FY2007 had an emphasis on respiratory, dermal, and hearing protection.

- 15 research awards that were directly related to PPE
- 8 research awards that had a strong relationship to PPE, mostly in the area of exposure assessment

Personal Protective Equipment

Polymer Web Sensing System (R43)

(Leonid Bukshpun, Physical Optics Corporation)

Project to develop a simple, wearable, low-cost sensing system that would warn a worker before acids or other chemicals penetrate protective chemical clothing.

Personal Protective Equipment

Cooling Suit for First Responders (R43)

(*Srinivas Girish, TDA Research, Inc.)*

Project to develop a lightweight, portable system that will cool and dehumidify air circulating within a hazmat suit that is worn for extended periods of time. The first phase of this SBIR award will focus on designing and building a heat exchanger.

Personal Protective Equipment

Respiratory Protection against Bioaerosols in Agriculture (R01)

(*Tiina Reponen, University of Cincinnati)*

Research sponsored by an an earlier NIOSH grant developed a method to measure workplace protection factors (WPF) of N95 filtering facepiece respirators for biological particles. A principal finding was that WPF values for biological particles were up to 6-times lower than for non-biological dust particles of the same size.

The new research will involve field testing to establish a database of WPFs against particles of different types in real settings. Particles will be characterized by size, shape, and microbiological composition.

Personal Protective Equipment

Absorption of Gas Phase Contaminants (R01)

(*Claudiu Lungu, University of Alabama-Birmingham)*

Project to evaluate a new family of Activated Carbon Fibers (ACF) as an adsorbent in respirators. The research will evaluate Fibrous Porous Materials and their applicability for respiratory protection by measuring adsorption of various gases and vapors under different conditions.

Personal Protective Equipment

Enclosing Hood Effectiveness (R01)

(*Steven Guffey, West Virginia University)*

Project to evaluate the effectiveness of benchtop enclosing hoods for protecting workers from airborne contaminant exposures. The research will determine the effects of hood airflow, cross-draft velocity, orientation, and hood size on performance.

Personal Protective Equipment

Daily Exposure Monitoring Intervention to Prevent Hearing Loss (R01) (*Steven Guffey, West Virginia University)*

A worksite intervention trial to evaluate the “Exposure Smart Protector” device which has a built-in noise dosimeter and provides daily feedback about noise exposures. The control group will wear normal hearing protection and will receive enhanced education and hearing protector fit testing.

Personal Protective Equipment

Active Hearing Protectors and Audibility of Critical Communications (R01) (*Anthony Brammer, University of Connecticut Health Center)*

This project will address the problem that hearing protection devices can interfere with the ability to communicate and to hear warning signals. The research is focused on improving speech intelligibility via a built-in communication channel and improving the perception of external alarm signals while maintaining attenuation of environmental noise.

Personal Protective Equipment

SCBA Oximetry for Fire Fighter Physiologic Monitoring (R44)
(*William Wiesman,* ***Sekos, Inc.****)*

This project will focus on remote physiologic status monitoring of personnel wearing PPE through a SCBA-based oximetry system that will communicate with ground based computers via radio-telemetry.

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Committed to research excellence on behalf of the American worker

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